INSTRUCTIONS

FOR USING THE

GOLD MAGIC MACHINES

magic
systems

TABLE OF CONTENTS

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ttssssrrrrqppooonnnn
mmmlllkkjjiiihhhggfff
eeeeeddddcccbbaaaa0
0099887766554443322
111$$!?.;” --„,,..&&ZYY
XWVVVUUTTSSS
RRRQPPOOONNNM
MLLKKJJIIIHHGGF
FEEEEDDCCBBAAA

BEFORE YOU START

Getting off to a good start requires a little time for unpacking and sorting. Using care to do this, will later save you much time. It will also be extremely helpful if you take the necessary time to read these instructions thoroughly. They are written from years of experience and contain vital information you need to know.

1. If you ordered type trays, take time to put the labels on the compartments. This will help you when you sort your type and when you go to use it later.

2. Open your typesets carefully. Follow these suggestions:

   a. Before unwrapping type, place it in a square-cornered cookie pan. Then, carefully unwrap paper only until you can see the type. Keeping type flat on bottom of the cookie pan, slide paper from underneath the type. Do not remove wood sides. Put typeset snugly in lower left-hand corner of cookie pan or similar type container.

   b. Put a book or other object under upper right-hand corner of the cookie pan so that type then leans against the lower left corner walls of the cookie pan.

c. Using tweezers, carefully lift letters from the set and place them in the proper compartments of the plastic type tray. Begin with the upper-right type and proceed toward the lower-left

d. In the smaller point sizes, and especially in the gothic type style, it is easy to confuse letters, especially i and j, u and n, etc. A magnifying glass can be very helpful If you have an empty labelled pocket in your type tray after sorting the type, chances are you have inadvertently mixed the missing letter in with another. Please check pockets of the type tray which seem overly full.

3. If something in your shipment appears to be missing, wait one day. Sometimes your order will be shipped on two different days. If you think something is missing, drop a note to Customer Service, Magic Systems, Inc., P.O. Box 23888, Tampa, FL 33623.

4. In the event your shipment was damaged, please report the damage to the carrier. In the U.S., United Parcel Service is usually the carrier. They have a local damage control number. UPS will notify us of the damage, and we will then expedite a replacement.

18 POINT STANDARD

AAABBCCDDEEEFFGGHHIIJJ
KKLLMMNNNOOOPPQRRRSSS
TTTUUVVWWXYYZ&&$$111
22334455667788999000...''''--,,;;::?!
aaaaabbcccddeeeeefffgghhhhiiii
ijjkkllllmmmmnnnnoooopppqrrrrrs
sssstttttuuuuvvvwwxyyz

TYPE SET CONTENTS

Shown below are 3 sizes of standard type (12, 18, and 30 Pts.). This gives you a general idea of the distribution in your typeset. It also should help you find the letters, especially in the gothic style, which often are confused (i and j, I and l, b and d and p and q and P, and u and n). The gothic style letters are in exactly the same place in the package as are the standard sets shown below.

12 POINT STANDARD

AAABBCCDDEEEEFFCGHHIIIJKKLLMMNNN
OOOPPQRRRSSSTTTUUVVWWXYYZ&&aaaaa
nbbccdddeeeeefffgghhhiiiiijjkkllllmmmnnnn
oocooopppqrrrrrsssssttttuuuvvwwxyyz......,,,--"';;
$$!?!11122334455667788999000

The smaller the set, the more letters they contain. There is always more than ample type in the small sizes. Sometimes in the larger sets, you may need an additional set. Look at the character differences between 12 point on this page and 30 point on page 24.

HOW TO SET TYPE

Setting type is an easy process which thousands of amateurs have learned. A little patience in learning will save you inconvenience later.

1. Locate the package of spacing material (leads and slugs) and the "End Piece". The long pieces right to left in the drawing on the next page are leads and slugs. The shorter piece up and down is the end piece. The end piece is a piece of lead which has been cut to approximately 1-1/4" for the Model 1SX or about 3" for the Model 2SX machine. Additional end pieces may be made by cutting a piece of slug with a hack saw or with household scissors. If you did not order this spacing material, you may wish to use blocks of aluminum or steel.

2. It is best to set the type against an incline, resting, for example against a book, to keep the type from falling to one side or another. Put most of the leads and slugs into the typeholder. Begin putting type in middle of leads and slugs as described below. Remember type is set in reverse. At first this may seem complicated. With practice, this will seem normal.

3. This diagram shows the proper way to set the name "DANA".

SET SCREWS

DANA

4. The drawing below represents how the quad must extend beyond the end of the spacing material in each line. The end piece applies pressure only against the quads and spacers, not against the leads and slugs. (Quads and spacers are squares or rectangles, leads and slugs are long and thin.)

SMALL SPACERS

END PIECE

LEADS AND SLUGS
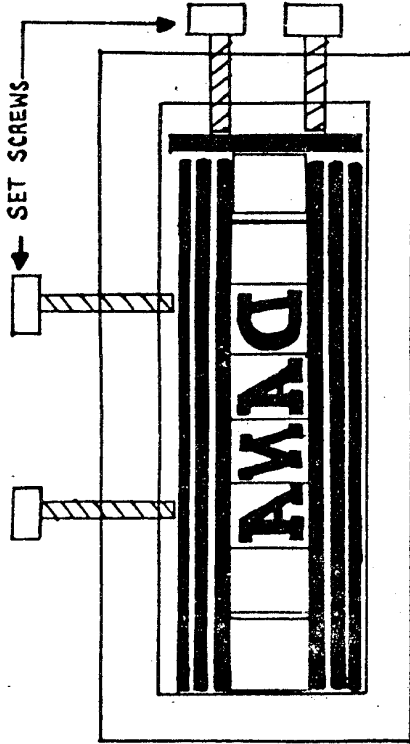
QUADS
(Large Spacers)

PHOTO-ENGRAVED DIES
(Artwork)

Custom logos or design can be made into a piece of type. Send us a black on white, typeset copy. The better the copy you send us the better the results. We can enlarge up to 300% or reduce to any size. Tell us what size your finished artwork is to be. Allow two weeks for delivery. First square inch $17.50. Add $10.00 for each additional square inch or fraction.
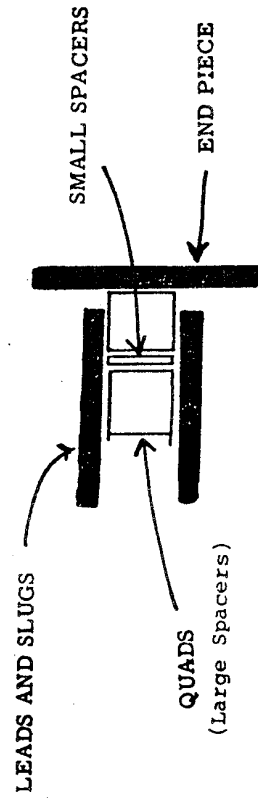
Thank you for your order. Do not hesitate to mail us samples of special jobs for suggestions. These are but basic instructions. Often, with the wide variety of printed objects now-a-days, unusual printing is required. It is always best to experiment with temperature and dwell time before printing a valuable item.

Customer Service Dept.
Magic Systems, Inc.
P.O. Box 23888
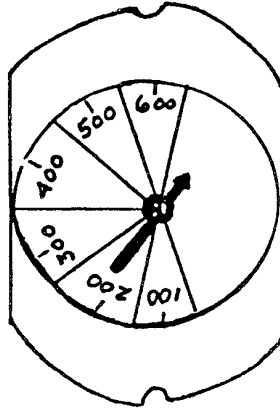Tampa, FL 33623-3888
(813) 886-5495

3. Adjusting the Brass Screw. If metal parts become worn after years of service, it may become necessary to tighten the brass adjusting screws. These are located on the plate where your warning label is located. Bring the typehead down to the printing table. Loosen the nut. Turn the Brass Screws. Tighten the nuts. You will need very infrequently to make this adjustment. When you do, adjust it so that the movement is comfortable to you.

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5. Notice that each piece of type has a groove along one side. Line up the type so that the grooved sides of the type face the same direction and then you will not set any pieces upside down.

6. When setting your type, use quads (square pieces of blank type in each point size) and spacers (smaller than the square pieces) between the words and to fill up the line. Quads normally are used between the words. You must use the same "point size" spacers and quads as the "point size" of the type on each line.

7. Leads and slugs are used between lines and to fill up the type holder. The "End Piece" is used as shown above. Set the type, reading from right to left, using quads and spacers. Between the lines use leads and slugs. If you use the same number of quads and spacers on each side of the type, you will automatically center your message.

8. Lock your type firmly from the top and the side, using set screws in the type holder. Any looseness after the locking in of the type could result in the message not printing properly.

HEATING UP THE MACHINE

1. On the side of your machine is the Robotemp heat control. Turn the knob to 10 to begin fast heat-up.

2. The thermometer often appears to be seen in reverse or "upside down". This is the nature of such thermometers. Watch it to see the direction it moves toward the higher temperature.

The thermometer shown in this drawing reads 225 degrees. It is the long end of the indicator that shows the temperature, not the arrow shaped end.

3. When the thermometer passes above 150 degrees, turn the "Robotemp" to number 4 or 5. Stabilize the temperature at 225 degrees. There is some variation between Robotemp settings. However, good operating temperatures normally are between 3 and 6.

TROUBLE SHOOTING

1. How to Change the Robotemp. Unplug the Robotemp from the electrical outlet. Unplug the heater from the Robotemp. Slide the old Robotemp up and off. Slide the new Robotemp into the electrical outlet. Extra Robotemps, if you wish to purchase them, are $35.00.

2. How to Change the Heat Strip. The Model 1SX and the Model 2SX Machines have only one heat strip. The heat strip is in the block above the type head. First, unplug the machine from the electrical outlet, then unplug the heat strip from the Robotemp. Use a screw driver to remove the screws on top of the block, making sure the block is down on the printing table so it can't fall. Lift the cover off the block. Remove the heater, unwire the old heater from the plug, noting how the wires are connected. Attach the new heater to the plug just as the old heater was attached. Put the new heat strip back in the block, and reassemble. Plug the heater into the Robotemp and plug into the wall. Extra heat strips, if you wish to purchase them, are $24.95 for the 1SX and $29.95 for the 2SX.

Other Specialized Printing.

1. Printing Plastics and Other Materials. There are thousands of different foils for printing on different materials. The foils we supply are for general purpose use and work well on most surfaces. You may wish to print something that requires a special foil. Write us and send a sample of the material. We will try to supply the proper foil.

2. Printing Bibles and Leather. Always test print your message before printing the real thing. Some leathers that have a very deep grain are difficult to print and require great pressure. We do not recommend printing valuable heirlooms. There is always the possibility of making a mistake.

3. Printing Hard Plastics. When printing most hard plastics, experiment first. DO NOT USE PRESSURE as this will damage your type. Use a higher temperature, 275 degrees to 325 degrees, and longer dwell, 5 to 20 seconds.

4. Printing on More Objects. For printing on glass, metal, ceramics round, and other formerly impossible objects (such as Bic Lighters), use clear mylar labels. These can be purchased cut to size for a Bic Lighter 1600 to a pack for only $39.95. Or 10 sheets 15" x 24" for only $19.50

4. What is the proper heat is determined by the foil type and the object to be printed. Most objects printed with the high gloss metallic foils print best at 225 degrees, while some plastics print at 275 degrees. The paper foils, which are of lower gloss, print best at 200 degrees on papers, but vary widely on other objects. A little experimentation will answer your questions quickly.

PRINTING

Good printing is a combination of good type-setting, little if any pressure, and the right foil for the object to be imprinted.

1. Insert the type head and message in the following manner: Put the type head into the holder on the machine, push to your left and up slightly, and tighten the Thumb Screw that holds the type head. CAUTION: If machine is hot, use gloves or a thick cloth to prevent being burned.

2. If you put the typeholder in the machine and a few pieces of type fall out, it means you did not get adequate pressure on the ends of each line of type. Study Drawing I and II. Make sure that screws are tight. Remove and reset tightly.

3. Wait for the type head to become hot. In normal printing, you would set your message and put the type head into the machine prior to controlling the tempera-ture. You might, in fact, purchase an extra type head, set a second message while waiting for the first type head to heat.

4. Place your foil on the carriage bolt in the holder on the left of your machine as you face it. The foil does not need to fit tightly in the foil holder. If you wish to prevent the foil from sliding forward or back on the bolt, you can use various items to fill the space. Examples of such items would be wide metal washers or empty spools of thread cut to size.

PRINTING MATCHBOOKS

Open the matchbook so that the matches go underneath the printing surface. The matchbook may be inserted for either horizontal or diagonal printing. A pencil may be used to mark the spot where the matchbook is to be inserted each time depending on the size of the message.

PRINTING PENS AND PENCILS

Use a screwdriver to adjust the springs on the pencil holder until they feel just right to your taste. The pencil should slide in and out easily, but still be held firmly in place. Use light pressure when printing pencils. A hard pull will crush the wood. 8-point type is best for printing pencils, and 10-point will also work.

5. Place a piece of press-board (poster-board) or neoprene rubber (such as a piece of rubber cut from an inner tube) on the printing table. Some objects, such as paper, require a slightly sofe surface for good printing. Others, such as leather, are soft enough themselves and print best when placed directly on the metal. Replace the pad as soon as it begins to accept indentation.

6. Place the object to be printed beneath the type head. Pull the foil across the top of the object to be printed.

7. Bring the type head down, using the handle. The stroke is very important for good results. Pull the handle down smartly and then immediately back up. DO NOT USE TOO MUCH PRESSURE AS THIS MAY DAMAGE YOUR TYPE. If you dwell too long at the bottom of the stroke, you may transfer too much heat to the foil and "burn" the image, meaning that small areas such as the inside of letters "e", "a", and "o" will fill in on the printed image. If this happens, you must reduce the dwell time or use less pressure, or as a last resort, turn the heat down to a lower temperature. This may happen from time to time if you dwell too long, even if the temperature is correct. The piece printed need not be lost, however, if the over-print is not too bad. Take a piece of bandage gauze and rub the printed area lightly. The overprinted area should clean up nicely.

8. NOTE: Always use as little pressure as possible. If you only set one line of type, be especially cautious. You can break the type.

9. Use the right foil! If your printing papers are shiny (have a coating), use the bright metallic foils. If you print on uncoated papers, like this page, use the paper foil. For pens and pencils and matchbooks, use bright metallic. For letterhead, envelopes, napkins, etc., use the paper foil.

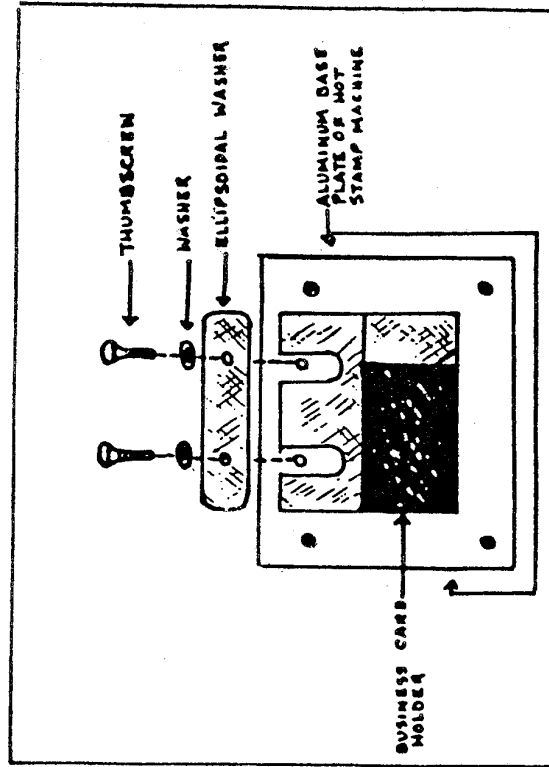MAKING YOUR OWN CUSTOM HOLDER
(Jigging Up)

This method applies especially to printing labels for Bic lighters. However, it can also be used for any other object with a square edge, like award ribbons.

1. Every item may be different. One time it's napkins, the next a letterhead, the next business cards, etc. Leads and Slugs may be used. Pressboard is good, so is neoprene rubber. Make a jig for whatever you need. We also have special holders which operate in the same manner but much more accurately.

2. Using any kind of sticky tape, secure two metal slugs to a printing surface (such as the pressboard) and form a corner or right angle. The item to be printed will slide into this corner and stop at the same place each time. Put an item in the jig, place the jig under the printing head and try printing. Move the jig until the printing is perfectly centered on the item, and then tape the jig to the printing table, as shown below. You can now print the items rapidly and the printing will be perfectly centered on each item.

1. We manufacture five printing holders to make it easier for you to use our machine. All our holders are designed to give room for two dimensional adjustment of the holder. Each holder is made with two wide grooves and comes with two thumb screws, two washers, and one large ellipsoidal washer with two holes. The thumb screws go through these holes and screw into the base plate. The holder slides underneath the washer and may, because of the wide grooves, be moved in any direction to get the exact placement you want. A few trial printings should show you the exact position. Once you have it placed, tighten down the two thumb screws.

2. When using the Business Card Holder on the 2SX machine, the message should be set at the very forward (closest to you) part of the type holder. When tightening the Business Card Holder to the base plate of the machine, be sure to only use the very edge of the Business Card Holder. This will allow the head to clear the holder and print your message accurately.

USING SPECIAL HOLDERS

For many standard items, holders are available on the enclosed order form. Those include business cards, pens and pencils, matchbooks, napkins, and playing cards. You can only print pens and pencils or matchbooks using the holders.

THUMBSCREW
WASHER
ELLIPSOIDAL WASHER
ALUMINUM BASE PLATE OF HOT STAMP MACHINE
BUSINESS CARD HOLDER

DRAWING IV

INSTALLATION OF HOLDER ON ALUMINUM BASE PLATE